AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A phosphor substrate, ~~prepared by crystallization from supercritical ammonia-containing solution, wherein said phosphor substrate comprises~~ comprising a nitride containing at least one element selected from Group XIII (IUPAC 1989) having:

a general formula XN, wherein X is at least one element selected from B, Al, Ga and In,

a general formula XN:Y, wherein X is at least one element selected from B, Al, Ga and In, and Y is at least one element selected from Be, Mg, Ca, Sr, Ba, Zn, Cd and Hg, or

a general formula XN:Y,Z, wherein X is at least one element selected from B, Al, Ga and In, Y is at least one element selected from Be, Mg, Ca, Sr, Ba, Zn, Cd and Hg, and Z is at least one element selected from C, Si, Ge, Sn, Pb, O and S; and

wherein said phosphor substrate contains alkali metals at a concentration of 0.1 ppm or more.

2. (Withdrawn) A light emitting device comprising an n-type nitride semiconductor layer, an active layer comprising a nitride semiconductor, and a p-type nitride semiconductor layer, formed on a substrate for growth,

wherein said substrate is a phosphor substrate comprising nitride which is prepared by crystallization from supercritical ammonia-containing solution and contains at least one element selected from Group XIII (IUPAC 1989) having a general formula XN, wherein X is at least one element selected from B, Al, Ga and In, a general formula XN:Y, wherein X is at least one element selected from B, Al, Ga and In, and Y is at least one element selected from Be, Mg, Ca, Sr, Ba, Zn, Cd and Hg, or a general formula XN:Y,Z, wherein X is at least one element selected from B, Al, Ga and In, Y is at least one element selected from Be, Mg, Ca, Sr, Ba, Zn, Cd and Hg, and Z is at least one element selected from C, Si, Ge, Sn, Pb, O and S.

3. (Withdrawn) The light emitting device according to claim 2, wherein said light emitting device has at least one phosphor layer on said phosphor substrate.

4. (Withdrawn) The light emitting device according to claim 2, wherein said light emitting device forms a flip chip type light emitting device equipped with a pair of positive and negative electrodes formed on the same plane.

5. (Withdrawn) A process for obtaining a phosphor bulk single crystal in an autoclave 1 for preparing supercritical solvent, a convection control means 2 for establishing a convection flow and a furnace unit 4 equipped with a heating device 5 and a cooling device 6,

wherein the temperature inside the autoclave is controlled to obtain a predetermined temperature gradient by said heating device 5 and/or said cooling device 6,

wherein the convection control means 2 comprises at least one horizontal baffle 12 having a central opening and/or a space between the baffle and an inner wall of the autoclave, and separating the dissolution zone 13, where the feedstock 16 is located above said baffle from said crystallization zone, where the seed 17 is located below said baffle,

wherein a convection flow rate of the supercritical solution between said dissolution zone 13 and said crystallization zone 14 is determined by a degree of opening of said convection control means 2 and a temperature difference between said dissolution zone 13 and crystallization zone 14,

wherein nitride is dissolved in the supercritical solvent containing ammonia and at least alkali metal ions to make the supercritical solution, in which the nitride has a negative temperature coefficient of solubility and the supercritical solution is supplied from said dissolution zone 13 to said crystallization zone 14 in which the seed is located through said convection control means 2, so that nitride crystal is selectively grown on the seed arranged in the autoclave by maintaining supersaturation of the supercritical solution with respect to the seed at the predetermined raised temperature and controlling below a certain concentration, so as not to allow spontaneous crystallization.

6. (Withdrawn) The process according to claim 5, wherein the ratio of diameter to total length of the autoclave is set from 1/15 to 1/3, the ratio of opening in said horizontal baffle on the cross-sectional area is set at 30% or less and growth rate on the seed is 10 μm/hr or more.

7. (Withdrawn) The process according to claim 5, wherein at least one element of Li, Na or K and at least one element of Mg or Ca are used as a mineralizer.

8. (Currently Amended) The phosphor substrate according to claim 1, wherein said ~~phosphor substrate~~ nitride has said general formula XN:Y, wherein said Y is a dopant having ~~in concentrations~~ a concentration of 10^{17} to $10^{21}/cm^3$ or said general formula XN:Y,Z, wherein said Y and said Z are dopants having concentrations of 10^{17} to $10^{21}/cm^3$.

9. (Previously Presented) The phosphor substrate according to claim 1, wherein said phosphor substrate has the off-angle between 0.05 and 0.2 degree.

10. (Previously Presented) The phosphor substrate according to claim 1, wherein the roughness of said phosphor substrate surface is 10Å or less.

11. (Previously Presented) The phosphor substrate according to claim 1, wherein said phosphor substrate has a surface dislocation density of $10^6/cm^2$ or less.

12. (Currently Amended) The phosphor substrate according to claim 1, wherein said phosphor substrate has [[the]] a full width at half maximum of [[the]] X-ray diffraction from [[the]] a surface plane of 600 arcsec [[.]] or less.

13. (Previously Presented) The phosphor substrate according to claim 1, wherein said phosphor substrate has the crystal structure of a wurtzite.

14. (Canceled)

15. (Previously Presented) The phosphor substrate according to claim 1, wherein a cap layer in the form of GaN or AlGaN is provided on said phosphor substrate.

16. (Previously Presented) The phosphor substrate according to claim 1, wherein said phosphor substrate consists of GaN:Zn.

17. (Previously Presented) The phosphor substrate according to claim 1, wherein said phosphor substrate is a single crystal substrate on which a gallium nitride crystal can be grown in the vapor phase.

18. (Previously Presented) A light emitting device provided with the phosphor substrate according to claim 1, wherein said light emitting device can excite said phosphor substrate.

19. (Previously Presented) The light emitting device according to claim 18, wherein the light emitting wavelength region of said light emitting device is set within the ultraviolet region.

20. (Previously Presented) The light emitting device according to claim 18, wherein at least one phosphor layer is provided on said phosphor substrate.

21. (Previously Presented) The light emitting device according to claim 20, wherein said phosphor layer comprises the nitride phosphor activated by at least one element of rare earth selected from the group consisting of Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er and Lu, and contains N and at least one element of Group II selected from the group consisting of Be, Mg, Ca, Sr, Ba and Zn, and at lest one element of Group IV selected from the group consisting of C, Si, Ge, Sn, Ti, Zr and Hf.

22. (Previously Presented) The light emitting device according to claim 18 or 20, wherein said light emitting device is in the form of flip chip type having the light extraction plane on the side of said phosphor substrate.

23. (Currently Amended) The light emitting device according to claim 20, wherein said light emitting device is able to emit [[the]] white light by mixing [[the]] light emitted from said phosphor substrate and a part of [[the]] light emitted from said phosphor layer.

24. (Currently Amended) A phosphor substrate comprising a nitride containing at least one element selected from Group XIII (IUPAC 1989) having:

a general formula XN, wherein X is at least one element selected from B, Al, Ga and In,

a general formula XN:Y, wherein X is at least one element selected from B, Al, Ga and In, and Y is at least one element selected from Be, Mg, Ca, Sr, Ba, Zn, Cd and Hg, or

a general formula XN:Y,Z, wherein X is at least one element selected from B, Al, Ga and In, and Y is at least one element selected from Be, Mg, Ca, Sr, Ba, Zn, Cd and Hg, and Z is at least one element selected from C, Si, Ge, Sn, Pb, O and S [[,]] ; and

wherein said phosphor substrate has a surface dislocation density of $10^6/cm^2$ or less and [[the]] a full width at half maximum of [[the]] X-ray diffraction from [[the]] a surface plane of 300 arcsec [[.]] or less, and contains alkali metals at [[the]] a concentration of 0.1 ppm or more.

25. (Currently Amended) A phosphor substrate comprising a nitride containing at least one element selected from Group XIII (IUPAC 1989) having:

a general formula XN, wherein X is at least one element selected from B, Al, Ga and In,

a general formula XN:Y, wherein X is at least one element selected from B, Al, Ga and In, and Y is at least one element selected from Be, Mg, Ca, Sr, Ba, Zn, Cd and Hg, or a

general formula XN:Y,Z, wherein X is at least one element selected from B, Al, Ga and In, and Y is at least one element selected from Be, Mg, Ca, Sr, Ba, Zn, Cd and Hg, and Z is at least one element selected from C, Si, Ge, Sn, Pb, O and S [[,]] ; and

wherein said phosphor substrate has the off-angle between 0.05 and 0.2 degree.

26. (New) The phosphor substrate according to claim 1, wherein said phosphor substrate is prepared by crystallization from a supercritical ammonia-containing solution.